

New diterpenoids and the bioactivity of *Erythrophleum fordii*

Tsao C.-C., Shen Y.-C., Su C.-R., Li C.-Y., Liou M.-J., Dung N.-X., Wu T.-S.

Department of Chemistry, National Cheng Kung University, No. 1 University Road, Tainan, 701, Taiwan; National Research Institute of Chinese Medicine, Taipei, 112, Taiwan; Department of Applied Chemistry, Providence University, Taichung, 433, Taiwan; Department of Chemistry, College of Natural Sciences, Hanoi National University, Hanoi, 10000, Viet Nam

Abstract: A phytochemical investigation of the leaves of *Erythrophleum fordii* Oliv. has led to the isolation of three new cassaine-type diterpenoids, erythrofordin A (1), erythrofordin B (2) and erythrofordin C (3), as well as a norcassaine diterpenoid with a novel skeleton, norerythrofordin A (4), and 27 known compounds (5-31). The structures of 1-4 were elucidated on the basis of spectroscopic analysis. Selected compounds from this plant were examined for anti-inflammatory activity. Taraxerol (16) displayed potent NO-reducing activity in microglial cells, and gallic acid (27) exhibited excellent DPPH radical-scavenging effects. Crown Copyright © 2008.

Author Keywords: Anti-inflammatory activity; Cassaine-type diterpenoids; *Erythrophleum fordii* Oliv

Index Keywords: 1,1 diphenyl 2 picrylhydrazyl; diterpenoid; erythrofordin a; erythrofordin b; erythrofordin c; *Erythrophleum fordii* extract; gallic acid; n(g) nitroarginine methyl ester; nitric oxide; nitric oxide synthase; norerythrofordin a; reduced nicotinamide adenine dinucleotide phosphate oxidase; taraxerol; unclassified drug; animal cell; antiinflammatory activity; article; controlled study; drug isolation; drug structure; *Erythrophleum fordii*; legume; microglia; mouse; nonhuman; Animals; Anti-Inflammatory Agents; Cells, Cultured; Diterpenes; Fabaceae; Free Radical Scavengers; Mice; Nitric Oxide; Plant Extracts; *Erythrophleum fordii*

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Chemicals/CAS: 1,1 diphenyl 2 picrylhydrazyl, 1898-66-4; gallic acid, 149-91-7; n(g) nitroarginine methyl ester, 50903-99-6; nitric oxide synthase, 125978-95-2; nitric oxide, 10102-43-9; reduced nicotinamide adenine dinucleotide phosphate oxidase, 9032-22-8; taraxerol, 127-22-0; Anti-Inflammatory Agents; Diterpenes; Free Radical Scavengers; Nitric Oxide, 10102-43-9; Plant Extracts

Correspondence Address: Wu, T.-S.; Department of Chemistry, National Cheng Kung University, No. 1 University Road, Tainan, 701, Taiwan; email: tswu@mail.ncku.edu.tw

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Authors with affiliations:

- Tsao, C.-C., Department of Chemistry, National Cheng Kung University, No. 1 University Road, Tainan, 701, Taiwan
- Shen, Y.-C., National Research Institute of Chinese Medicine, Taipei, 112, Taiwan
- Su, C.-R., Department of Chemistry, National Cheng Kung University, No. 1 University Road, Tainan, 701, Taiwan
- Li, C.-Y., Department of Chemistry, National Cheng Kung University, No. 1 University Road, Tainan, 701, Taiwan
- Liou, M.-J., Department of Applied Chemistry, Providence University, Taichung, 433, Taiwan
- Dung, N.-X., Department of Chemistry, College of Natural Sciences, Hanoi National University, Hanoi, 10000, Viet Nam
- Wu, T.-S., Department of Chemistry, National Cheng Kung University, No. 1 University Road, Tainan, 701, Taiwan, Department of Applied Chemistry, Providence University, Taichung, 433, Taiwan

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